

when both are used on the same building. Blob footings are commonly used for supporting brick piers and bearers and joists in timber floor construction. Alternatives to this type of support include steel adjustable piers, pre-cast concrete piers and treated timber stumps (generally used in states other than NSW).

Flooring systems

A flooring system is the floor surface and the method of floor framing used as support to the ground floor. Common systems in use are:

Suspended timber floor—One system consists of flooring boards in narrow strips laid on a timber or steel framing of bearers and joists and supported by brick walls or piers. The flooring is placed between the walls and is cramped and nailed in position when the building is advanced enough for the flooring not to be affected by the weather. (See Figure 6.31.)

Another system consists of sheet flooring of plywood or particle-board laid on a timber or steel framing of bearers and joists before the walls are erected, and therefore gives the advantage of providing a platform to work on. Both of these

methods require a minimum 400 mm clearance above the ground to the underside of bearers, which provides ventilation of the area beneath the floor framing to prevent decay in the timber framing. The timber bearers and joists used to support the flooring are placed at specified centres apart and are of a sectional size according to AS 1684.2—1999, Residential timber-framed construction—Non-cyclonic areas.

Slab-on-ground—This is a reinforced concrete floor placed directly onto the ground. One advantage of this method is the reduced building height. See Figures 6.28 and 6.29, and previous information on footings for details.

Suspended slab—This is a reinforced concrete floor suspended above the ground and supported on brick walls (Figure 6.32). The amount and type of reinforcement in a suspended concrete floor will be greater than that used in a slab-on-ground as a suspended slab must carry the floor loads between supports.

Wall structures

This is the composition of the external and internal walls. The walls may be constructed from

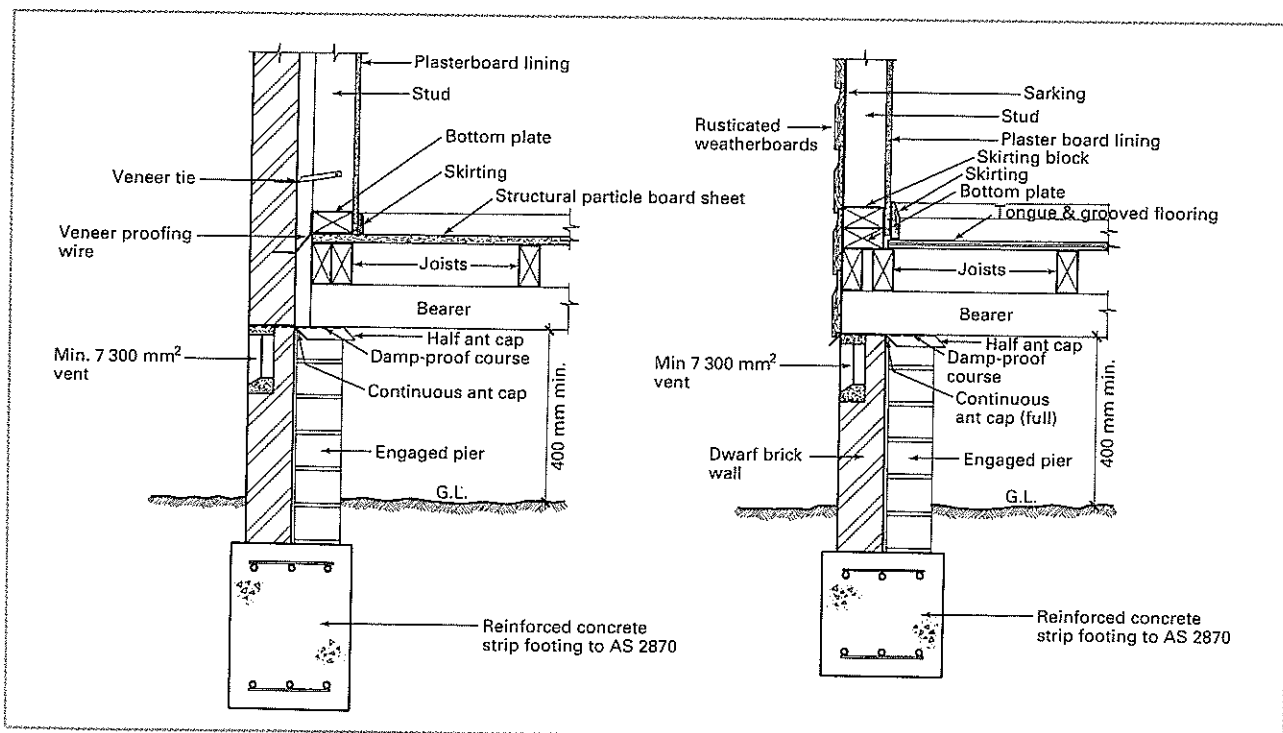


Figure 6.31 Vertical section through external walls of brick veneer and timber-frame construction

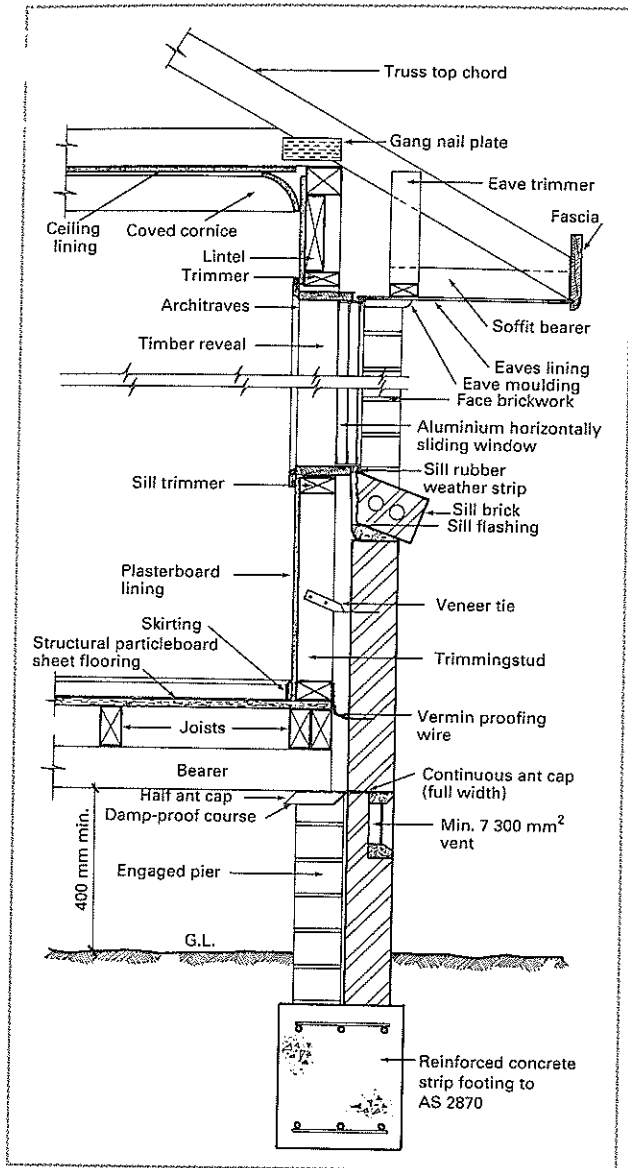


Figure 6.34 Vertical section through an external brick veneer wall and horizontally sliding aluminium window

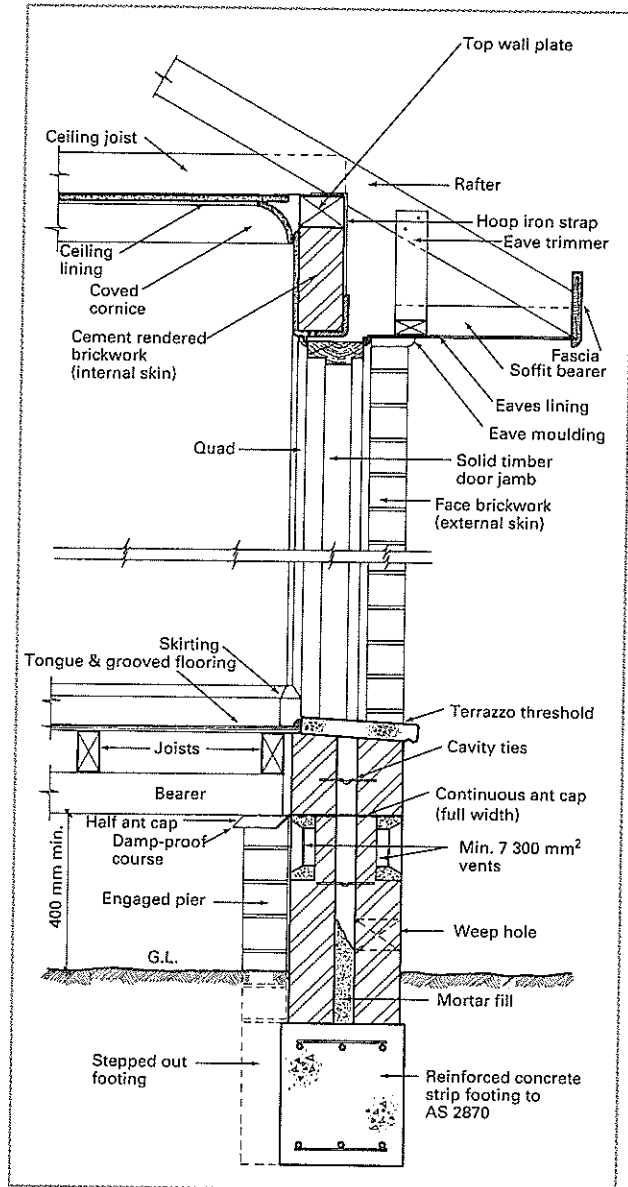


Figure 6.35 Vertical section through an external cavity brick wall and timber door jamb

an alternative to timber in the manufacture of ground floor framing, wall framing and truss fabrication. Each system is prefabricated in panels or sections off-site, with final assembly carried out on-site. There is also a wide range of alternative lightweight cladding options from fibre-cement sheeting systems to panels of styrene and autoclaved concrete systems.

Roof structures

Roof structure is the term given to the roof framing, eaves and roof covering. Conventional

and trussed roof construction allow for freedom of design, with the floor plan of the building determining the final shape of the roof. Common shapes in either conventional or trussed roof buildings are:

- gable roof
- hip roof
- hip and valley roof
- gambrel or Dutch gable
- jerkin head.